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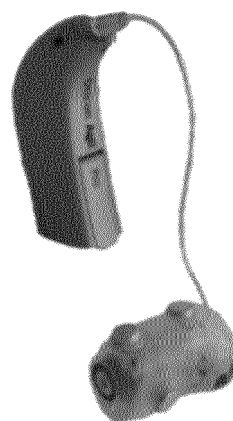
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(54) **A hearing assistance device with brain-computer interface**

(57) The present disclosure relates to a communication device. The device comprises input for receiving sound signal to be processed and presented to a user, and output for outputting the processed signal to a user perceivable as sound. The processing is performed by use of a processor for processing the sound signal in dependence of a setting or a set of setting to compensate a hearing loss profile. Further, the communication device comprises a bio-signal acquisition and amplifier component in communication with a user interface for providing the biosignals as input to the user interface, the user interface controlling the setting or set of setting for operation of the communication device.



**FIG 4**



## EUROPEAN SEARCH REPORT

Application Number  
EP 14 17 0930

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 19 February 2015	Examiner Bücker, Martin
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	



## EUROPEAN SEARCH REPORT

Application Number  
EP 14 17 0930

DOCUMENTS CONSIDERED TO BE RELEVANT			
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The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>19 February 2015</b>	Examiner <b>Bücker, Martin</b>
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

EPO FORM 1503 03/82 (P04C01)



Application Number

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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

## 1. claims: 1-3, 5, 8

Communication device according to EP 2 200 342 A1 wherein the bio-signal amplifier and acquisition component comprises alternatively an ear EEG electrode comprised in a mould configured specifically for the wearers ear canal or an implantable EEG electrode.

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## 2. claims: 4, 9-15

Communication device or method of controlling communication device according to EP 2 200 342 A1 wherein the bio-signal amplifier and acquisition component picks up intended space gestures.

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## 3. claim: 6

Communication device according to EP 2 200 342 A1 wherein the bio-signal amplifier and acquisition component includes a wearable camera for eye-tracking.

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## 4. claim: 7

Communication device according to EP 2 200 342 A1 wherein the communication system further comprises an alarm device.

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ON EUROPEAN PATENT APPLICATION NO.**

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19-02-2015

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EP 14 17 0930

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